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An Analytical Study on Gross Motor Skills

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Abstract

The purpose of the study was to compare the gross motor skills between moderate mental retarded children and non retarded children. The objective of the study is to determine gross motor skills such as agility, static and dynamic balance of moderate retarded and non retarded children. To achieve the purpose of the study moderate retarded children from St. Annes Convent and St. Bishop Sargent School for Mentally Retarded Children, Salem and 30 non retarded children were selected from Bell Convent, Salem The age of the subjects were ranged from 3-6 years. The data collected on the selected variables by using the standardized test items. Agility was tested by using the obstacle course, static balance was tested by using stork stand and dynamic balance was tested by using plank walk. The static group comparison design was used for this study. All the subjects were tested on selected variables. The data pertaining to the variables were examined by using independent 't' test. The level of significance was fixed at .05 level of confidence for all the cases. The result of the study shows that there was a significant difference exists between moderate mental retarded and non retarded children on selected gross motor skills. Non retarded children shows better performance in all the selected gross motor skills when compared to moderate mental retarded children. Hence it is recommended that, adapted physical educators should emphasize in a special designed adapted physical education program which is geared towards the development of motor skills for the children with moderate mental retardation.

Keywords: Mental Retardation, Moderate Mental Retardation, Non-Retardation, Motor Skill, Gross Motor Skill.

Introduction

Proficiency in the performance of fundamental motor skills (FMS) has been considered to be an underlying factor for the success of the more complex movements used in aquatics, dance, games, and sports. However, "sports" is not the only domain where motor skills "mastery" is important. According to Eichstaedt and Lavay (1992) competence in these skills carries over to functional skills necessary to perform movements required in daily living activities. Further, the continual failure to perform culturally normative skills within the range of acceptable proficiency may lead to serious secondary emotional and behavioral problems (Cratty, 1967).

Fundamental movement skill is an organized series of basic movements that involves the combination of movement patterns of two or more body segments which may be categorized as stability, locomotors or manipulative movement (Gallahue, 1996). For individual with mental retardation the most important benefit of fundamental motor skills development is in the area of functional skills. Competencies in those skills can carry over to the functional skills necessary to perform movements required in everyday living (Eichstaedt & Lavay, 1992).

Adequate motor performance is an important part of the day-to-day life. In fact, the long-term health outlook, the opportunities for social interaction, and the prospects for self-supporting vocational opportunities, may all depend on the motor proficiency of the mentally retarded person. This paper examines the need for some new research directions that might facilitate the development of more effective physical education programs for children who are mentally retarded.

Statement of the Problem

The purpose of the study was to compare the selected motor skills such as agility, static and dynamic balance between moderate retarded and non retarded children.

Methodology

The purpose of the study was to compare the gross motor skills between moderate mental retarded and non retarded children. The objective of the study is to determine motive skills such as agility, static and dynamic balance of moderate retarded and non retarded children. To achieve the purpose of the study moderate mental retarded children from St. Annes Convent and St. Bishop Sargent School for Mentally Retarded Children, Salem and 30 non retarded children were selected from Bell Convent, Salem The age of the subjects were ranged from 3-6 years.

The data collected on the selected variables by using the standardized test items. Agility was tested by using the obstacle course, static balance was tested by using stork stand and dynamic balance was tested by using plank walk. The static group comparison design was used for this study. All

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the subjects were tested on selected variables. The data pertaining to the variables were examined by using independent 't' test. The level of significance was fixed at .05 level of confidence for all the cases.

Analysis and Interpretations of Data

The data on selected variables are analysed and the obtained results are presented in Table I.

Table 1: The Summary of Mean and Independent 't' Test on Selected Motor Skills of Moderate Retarded and Non Retarded Children

Variables	Group	Number	Mean	Standard Deviation	Obtained 't' Ratio
Agility	Moderate Retarded	30	16.08	2.11	3.97*
	Non Retarded	30	12.80	1.69	
Static Balance	Moderate Retarded	30	25.67	1.72	8.79 *
	Non Retarded	30	19.00	1.83	
Dynamic Balance	Moderate Retarded	30	45.58	3.94	14.10*
	Non Retarded	30	47.33	3.87	

Agility & Static Balance Scores are in Seconds. Dynamic Balance score in Numbers

The table value for .05 level of significance with df 58 is 2.00

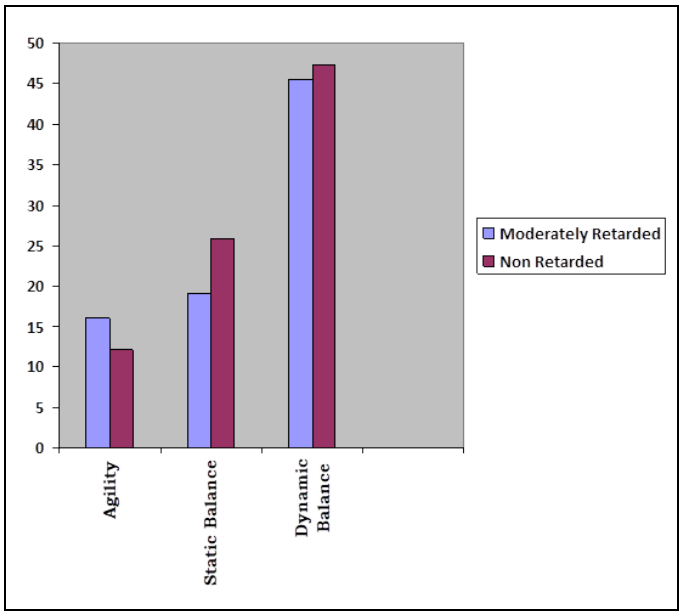


Fig 1: Mean values of moderate mental retarded and non-retarded children on selected motor skills

Results and Discussion on Findings

The result of the study indicated that, there was a significant difference exists between moderate mental retarded and non retarded children and the non retarded children were better on the selected motor skills when compared to moderate mental retarded children. The findings of the present study were supported by many of the following research findings.

The moderately mentally retarded are markedly inferior in physical fitness and gross-motor performance when compared to their non retarded counterparts; in fact, some studies have indicated that they are two to four years behind in most motor tasks (Rarick & Dobbins, 1972., Rariek, Widdop & Broadhead, 1970).

The lower the intelligence level or mental age, the greater are the motor proficiency deficits of the retarded (Cantor & Stacey, 1951). The cognitive demands of a motor task increase with task Complexity and, as the complexity of a task increases, the motor performance of the moderately retarded decrease (Fait & Kupferor, 1956., Groden, 1969). Greater intra individual variability and wider individual differences are found in retardate motor performance scores than in the population at large (Rarick &Dobbins, 1972) and the mentally retarded are especially sensitive to motivational factors in their motor performance efforts (Levy Joseph, 1974).

Rarick's and Dobbins (1972) recent study reported significantly higher body fat content and lower physica1 fitness scores for the wide age-range of mentally retarded children that they measured.

Widdop (1967) focused attention on the lack of physical education programs and the general lack of play opportunities for the mentally retarded. The over protectiveness of some parents and teachers of retarded children also contributes to the problem. An important time period in the development of motor skills is the pre-school years. A number of inherent factors limit the amount of motor practice opportunities available to the performance of the preschool mentally retarded child.

From the result of the study and also inferred from the above literature, it was concluded that mentally retarded children are less physically active and have fewer opportunities to practice motor skills than non-retarded children. Hence this study strongly recommended that, adapted physical educators should emphasize in a special designed adapted physical education program which is geared towards the development of fundamental motor skills for the children with moderate mental retardation.

Conclusions

The following conclusions were drawn from the findings of the present study.

i). There was a significant difference on selected motor skills between moderate mental retarded and non retarded children.

ii). Non children show better performance on all selected motor skills when compared to moderate mental retarded children.

Recommendations

i). Adapted physical educators emphasize a special designed and separate adapted physical education program towards the development of fundamental motor skills.

ii). Similar study may be attempted by selecting fine motor skills.

iii). Similar study may be attempted by selecting higher age groups.

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